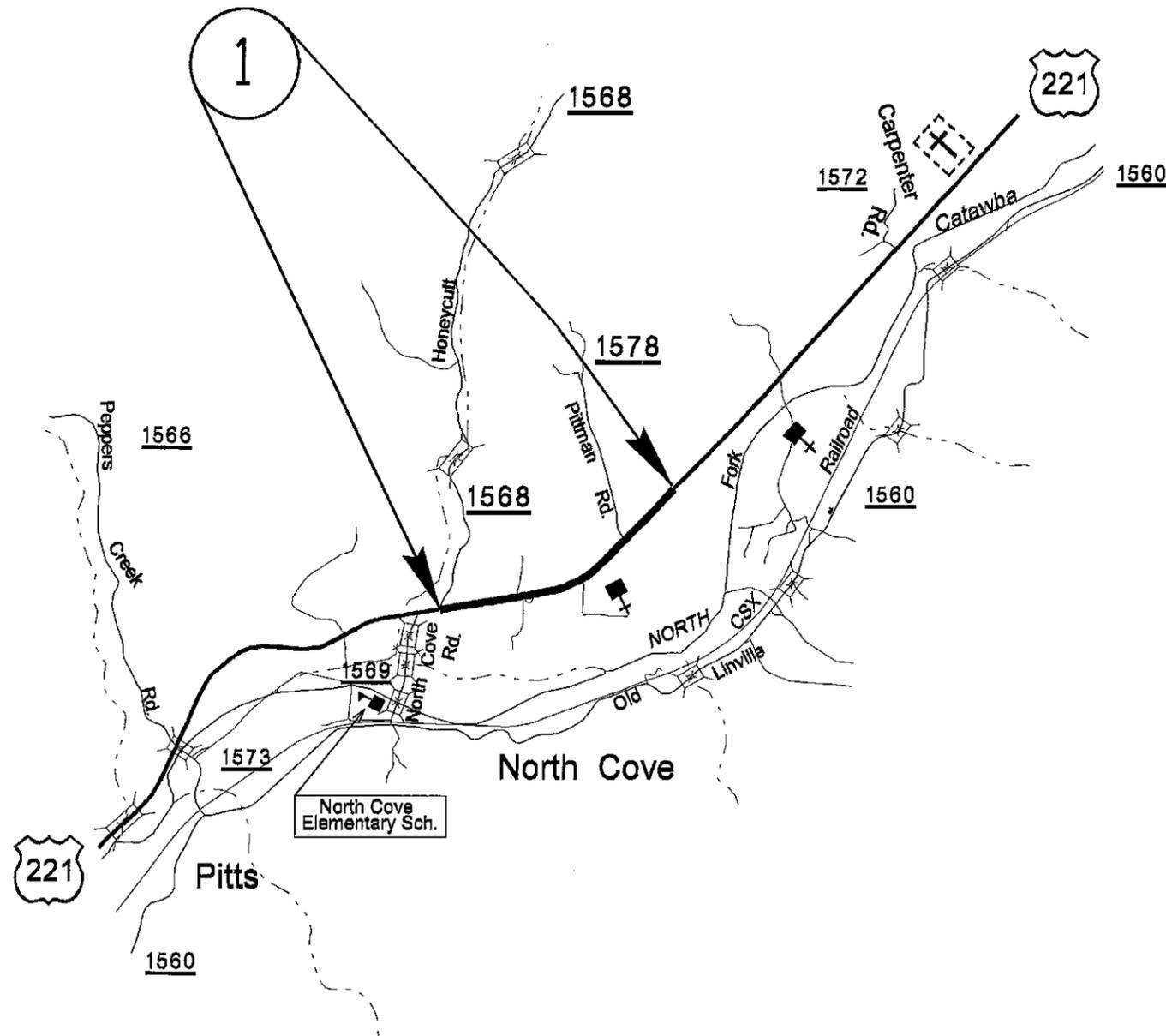
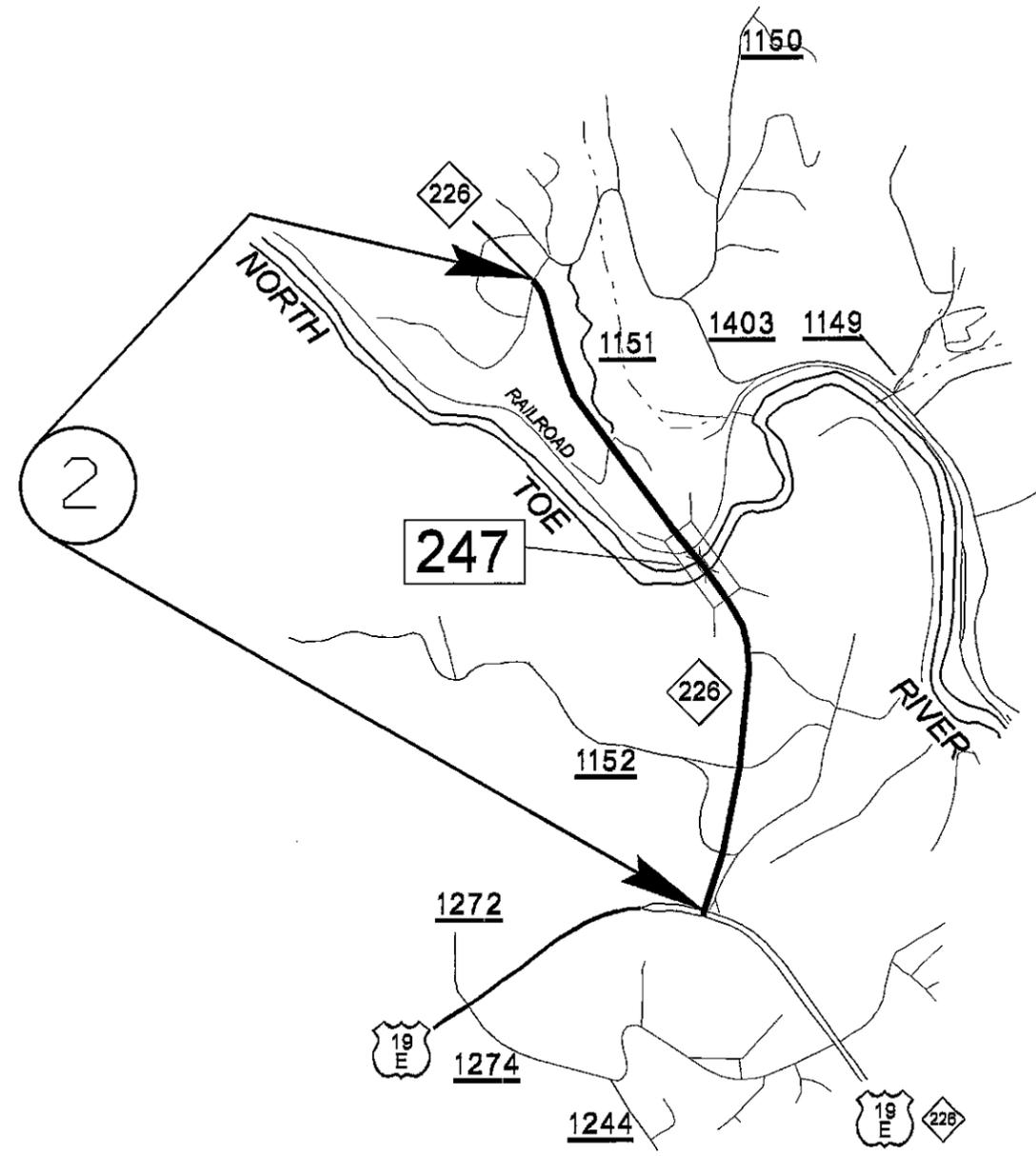
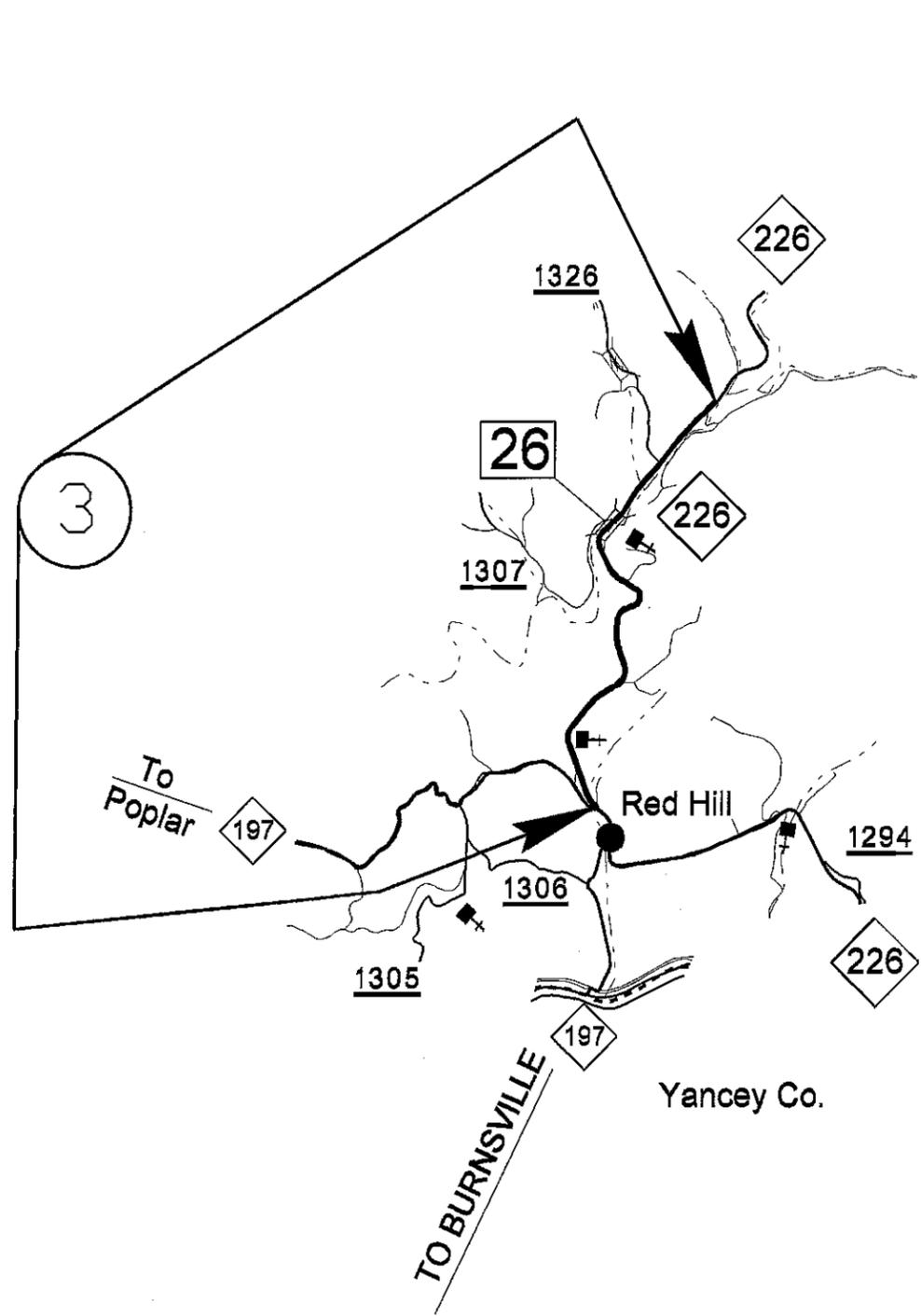


| PROJECT NO. | SHEET NO. | TOTAL SHEETS |
|---------------|-----------|--------------|
| 13CR.10591.14 | | |



McDOWELL COUNTY

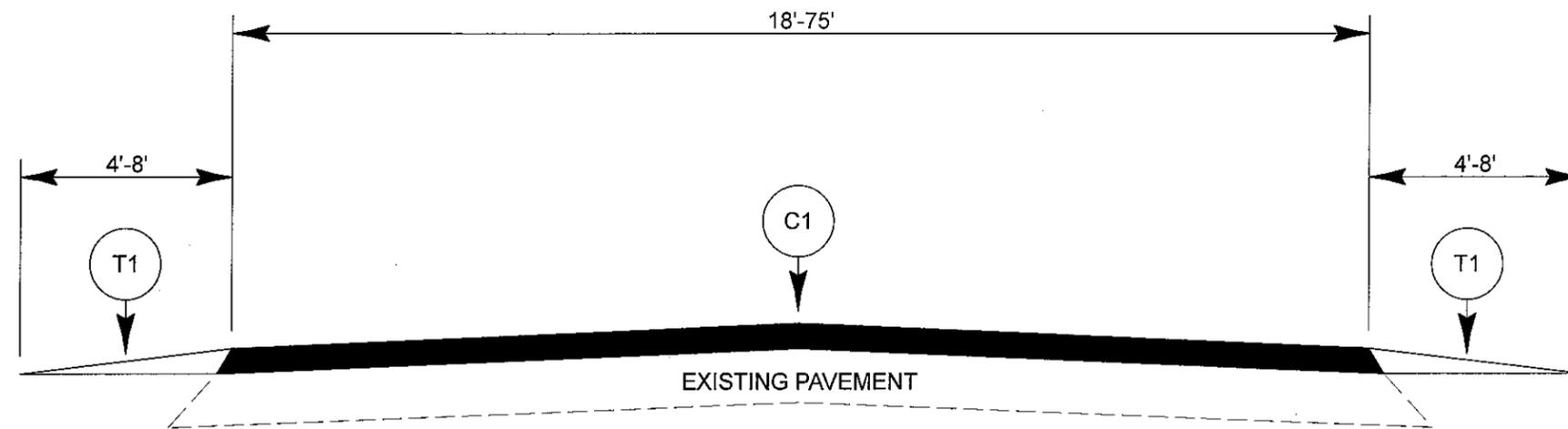
| PROJECT NO. | SHEET NO. | TOTAL SHEETS |
|---------------|-----------|--------------|
| 13CR.10611.14 | | |



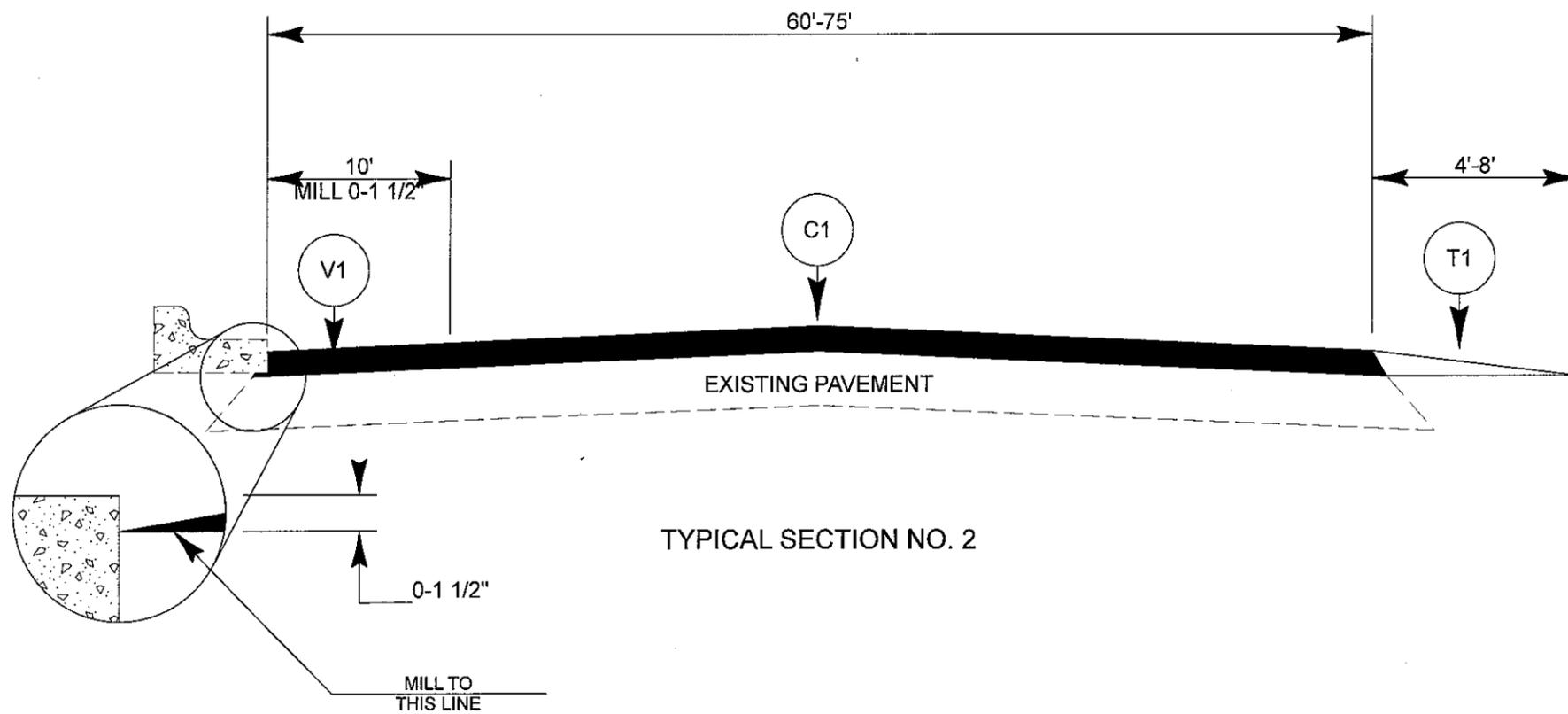
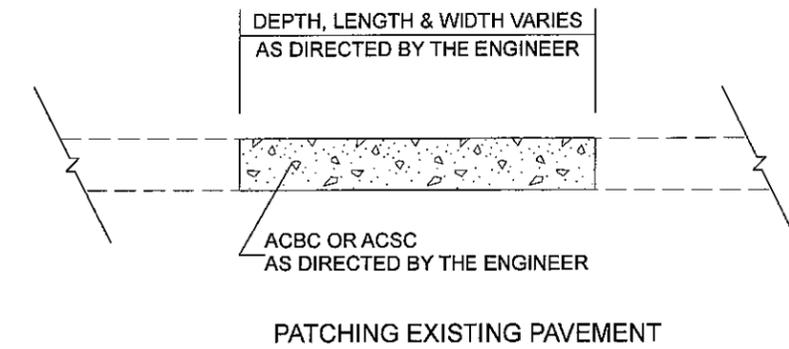
SPRUCE PINE
POP. 1,791

MITCHELL COUNTY

| | | |
|---|-----------|--------------|
| PROJECT NO. 13CR.10591.14, 13cr.10611.14 | SHEET NO. | TOTAL SHEETS |
| | | |



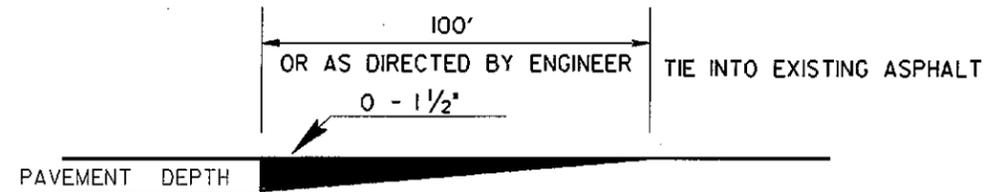
TYPICAL SECTION NO. 1



TYPICAL SECTION NO. 2

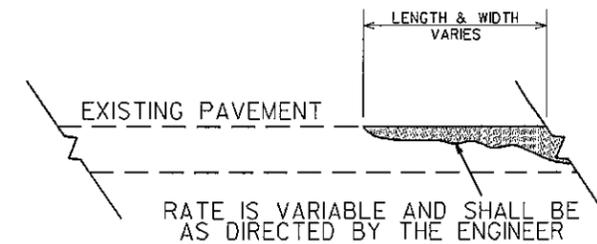
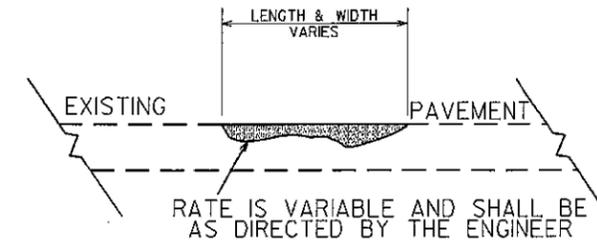
| PAVEMENT SCHEDULE | |
|-------------------|---|
| C1 | PROP. APPROX. 1-1/2" ACSC, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. |
| T1 | SHOULDER RECONSTRUCTION |
| V1 | MILLING ASPHALT PAVEMENT, 0 TO 1-1/2" DEPTH |

| PROJECT NO. | SHEET NO. | TOTAL SHEETS |
|------------------------------|-----------|--------------|
| 13CR.10591.14, 13CR.10611.14 | | |

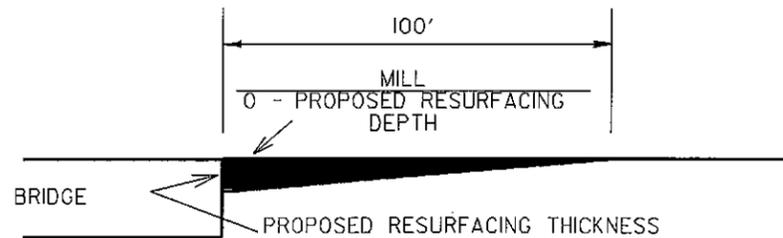


DETAIL TO TIE INTO EXIST PAVEMENT

THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE FACT THAT HE WILL BE REQUIRED TO MILL THE EXISTING ASPHALT PAVEMENT TO ENSURE A PROPER TIE-IN WITH THE EXISTING SURFACE AT THE BEGINING, END AND Y LINES OF EACH MAP TO BE RESURFACED WITH ASPHALT CONC SURFACE COURSE, TYPE S9.5B. THIS WILL BE PAID FOR AS MILLING ASPHALT PAVEMENT, 0 TO 1 - 1/2' DEPTH.

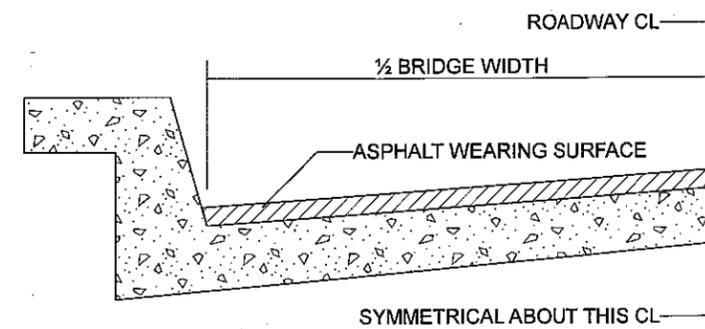


DETAIL SHOWING METHOD OF WEDGING



MILLING DETAIL AT BRIDGE APPROACHES

WHERE BRIDGES WILL NOT BE RESURFACED
COST OF MILLING IS INCIDENTAL TO OTHER ITEMS



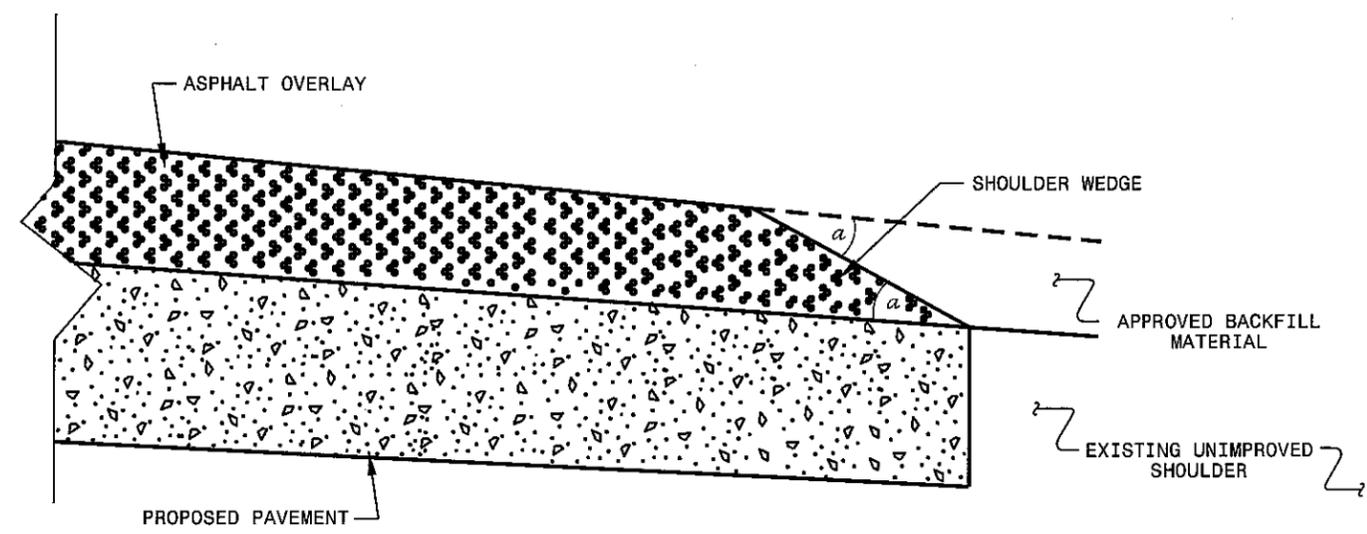
BRIDGE HALF TYPICAL SECTION

FOR BRIDGES WITH FLOOR DRAINS, CARE SHALL BE EXERCISED IN PLACING THE WEARING SURFACE AROUND FLOOR DRAINS SO AS NOT TO HINDER EFFECTIVE DRAINAGE. ALL DRAINS SHALL BE LEFT OPEN

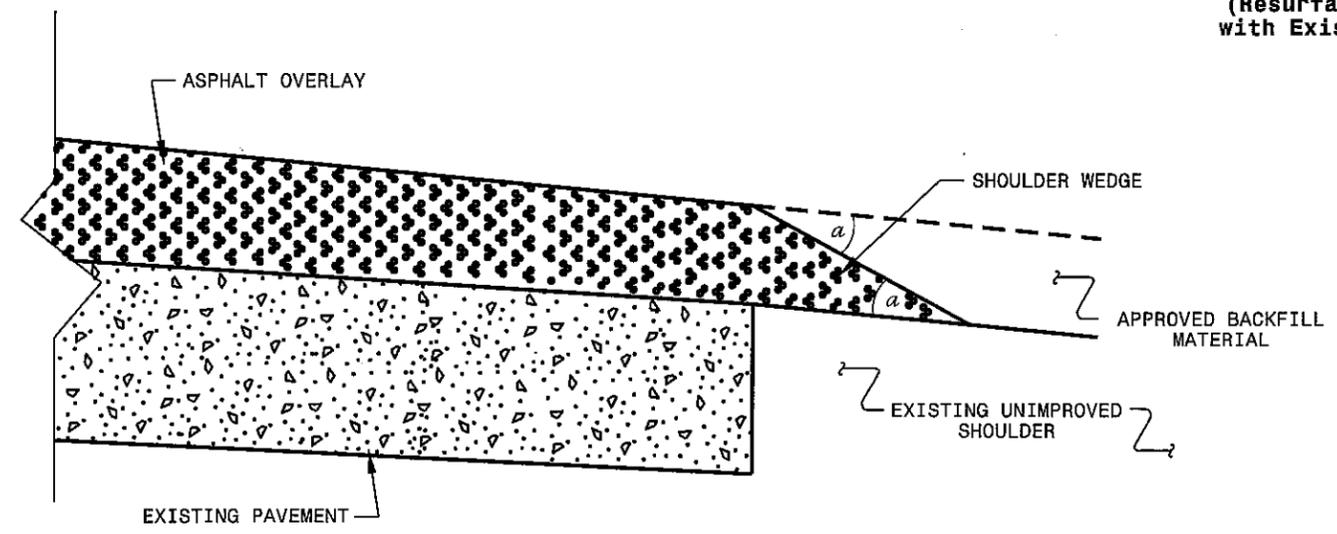
THE PROPOSED WEARING SURFACE SHALL VARY IN THICKNESS AS NECESSARY TO PROVIDE A SMOOTH RIDING SURFACE. THE MINIMUM THICKNESS SHOULD DEPEND ON PAVEMENT TYPE AS FOLLOWS: S4.75A 1/2", SF9.5A 1.0", S9.5X 1.5", S12.5X 2.0", ULTRATHIN HOT MIX ASPHALT-TYPE A 3/4", ULTRATHIN HOT MIX ASPHALT-TYPE B 5/8", ULTRATHIN HOT MIX ASPHALT-TYPE C 1/2". THE MAXIMUM THICKNESS SHOULD DEPEND ON PAVEMENT TYPE AS FOLLOWS: S4.75A 1.0", SF9.5A 1.5", S9.5X 2.0", S12.5X 2.0", ULTRATHIN HOT MIX ASPHALT-TYPE A 3/4", ULTRATHIN HOT MIX ASPHALT-TYPE B 5/8", ULTRATHIN HOT MIX ASPHALT-TYPE C 1/2".

NOTES

ALL UNPAVED ROADS TO BE RESURFACED 50' FROM EDGE OF PAVEMENT OF MAIN PROJECT.
ALL PAVED S.R. ROADS TO BE RESURFACED TO THE ENDS OF THE RADI, OR AS DIRECTED BY THE ENGINEER.
EDGES, PAVEMENT WIDENING, INTERSECTIONS AND BRIDGE FLARES ARE INCLUDED IN THE TABLE OF QUANTITIES.
SHOULDER AND DITCHES ARE TO BE CONSTRUCTED BY OTHERS UNLESS OTHERWISE INDICATED.
BRIDGES ARE TO BE RESURFACED AT LOCATIONS AND TO DEPTH AS DIRECTED BY THE ENGINEER.



SHOULDER WEDGE DETAIL
 (Resurfacing Projects w/ Widening or
 with Existing Paved Shoulder > 2 ft.)



SHOULDER WEDGE DETAIL
 (Resurfacing Projects w/ NO Widening)

- NOTES:
- 1) DETAIL DOES NOT APPLY TO OGAFB AND ULTRA-THIN BONDED WEARING COURSE.
 - 2) BACKFILL SHOULDER WITH APPROVED MATERIAL.
 - 3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS AND SIDE STREETS.

a - SHOULDER WEDGE ANGLE = 30°

| | |
|--|------------------|
| CONTRACT STANDARDS AND DEVELOPMENT UNIT | |
| Office 919-707-6950 | FAX 919-250-4119 |
| SHOULDER WEDGE DETAILS | |
| ORIGINAL BY: T. SPELL | DATE: 7-19-11 |
| MODIFIED BY: | DATE: 10/16/12 |
| CHECKED BY: | DATE: |
| FILE SPEC: s:\usr\details\stand\shoulderwedge\detail.dgn | |

*****SYTIME*****
 *****USERNAME*****

| | | |
|------------------------------|-----------|-----------|
| PROJECT NO. | SHEET NO. | TOTAL NO. |
| 13CR.10591.14, 13cr.10611.14 | | |

SUMMARY OF QUANTITIES

| PROJECT NO | COUNTY | MAP | ROUTE | DESCRIPTION | TYP | LANES | LANE TYPE | FINAL SURFACE TESTING REQUIRED | WARM MIX ASPHALT REQUIRED | LENGTH MI | WIDTH FT | INCIDENTAL STONE BASE TON | SHOULDER RECONSTRUCTION SMI | MILLING ASPHALT PAVEMENT, 0" TO 1 1/2" DEPTH SY | ASPHALT CONC SURFACE COURSE, TYPE S9.5B TON | ASPHALT BINDER FOR PLANT MIX TON | PATCHING EXISTING PAVEMENT TON |
|---|----------|-----|--------|--|-----|-------|-----------|--------------------------------|---------------------------|-------------|----------|---------------------------|-----------------------------|---|---|----------------------------------|--------------------------------|
| 13CR.10591.14 | McDowell | 1 | NC 221 | FROM SR 1568 TO SR 1578 + 0.35 MILES (MP 26.686 - MP 27.736) | 1 | 2 | 2WU | NO | NO | 1.05 | 22 | 53 | 2.10 | 735 | 1,259 | 76 | 400 |
| TOTAL FOR PROJ NO. 13CR.10591.14 | | | | | | | | | | 1.05 | | 53 | 2.10 | 735 | 1,259 | 76 | 400 |
| 13CR.10611.14 | Mitchell | 2 | NC 226 | FROM UNIMIN DRIVE TO 19E (MP 6.48 - MP 5.44) | 1,2 | 5 | MU | NO | NO | 1.04 | 60 - 75 | 52 | 1.00 | 8,600 | 3,864 | 232 | 250 |
| 13CR.10611.14 | Mitchell | 3 | NC 226 | FROM NC 197 TO SR 1326 + 0.29 MILES (MP 20.526 - MP 22.526) | 1 | 2 | 2WU | NO | NO | 2 | 18 | 100 | 4.00 | 1,200 | 1,965 | 118 | 750 |
| TOTAL FOR PROJ NO. 13CR.10611.14 | | | | | | | | | | 3.04 | | 152 | 5.00 | 9,800 | 5,829 | 350 | 1,000 |
| GRAND TOTAL | | | | | | | | | | 4.09 | | 205 | 7.10 | 10,535 | 7,088 | 426 | 1,400 |

THERMOPLASTIC AND PAINT QUANTITIES

| PROJECT NO | COUNTY | MAP | ROUTE | DESCRIPTION | TYP | LANES | LANE TYPE | LENGTH | WIDTH | 4413000000-E | 4457000000-N | 4695000000-E | 4710000000-E | 4725000000-E | | | 4847000000-E | | 4847100000-E | 4905000000-N |
|---|----------|-----|--------|--|-----|-------|-----------|-------------|---------|--|------------------------------|--|---|---|---|--|--|---|--|----------------------------------|
| | | | | | | | | | | WORK ZONE ADVANCE/GENERAL WARNING SIGNING SF | TEMPORARY TRAFFIC CONTROL LS | THERMOPLASTIC PAVEMENT MARKING LINES (8", 90 MILS) YELLOW LF | THERMOPLASTIC PAVEMENT MARKING LINES (24", 120 MILS) WHITE LF | THERMOPLASTIC PAVEMENT MARKING SYMBOL (90 MILS) LT ARROW EA | THERMOPLASTIC PAVEMENT MARKING SYMBOL (90 MILS) RT ARROW EA | THERMOPLASTIC PAVEMENT MARKING SYMBOL (90 MILS) STR ARROW EA | POLYUREA PAVEMENT MARKING LINES (4") WHITE (HIGHLY REFLECTIVE ELEMENTS) LF | POLYUREA PAVEMENT MARKING LINES (4") YELLOW (HIGHLY REFLECTIVE ELEMENTS) LF | POLYUREA PAVEMENT MARKING LINES (8") WHITE (HIGHLY REFLECTIVE ELEMENTS) LF | SNOWPLOWABLE PAVEMENT MARKERS EA |
| 13CR.10591.14 | McDowell | 1 | NC 221 | FROM SR 1568 TO SR 1578 + 0.35 MILES (MP 26.686 - MP 27.736) | 1 | 2 | 2WU | 1.05 | 22 | 118 | * | | | | | | 11,088 | 11,088 | | 69 |
| TOTAL FOR PROJ NO. 13CR.10591.14 | | | | | | | | 1.05 | | 118 | 1 | | | | | | 11,088 | 11,088 | | 69 |
| | | | | | | | | | | | | | | 22,176 | | | | | | |
| 13CR.10611.14 | Mitchell | 2 | NC 226 | FROM UNIMIN DRIVE TO 19E (MP 6.48 - MP 5.44) | 1,2 | 5 | MU | 1.04 | 60 - 75 | 126 | * | 1,600 | 205 | 6 | 2 | 4 | 14,132 | 10,982 | 450 | 300 |
| 13CR.10611.14 | Mitchell | 3 | NC 226 | FROM NC 197 TO SR 1326 + 0.29 MILES (MP 20.526 - MP 22.526) | 1 | 2 | 2WU | 2 | 18 | 224 | | | | | | | 21,120 | 21,120 | | 265 |
| TOTAL FOR PROJ NO. 13CR.10611.14 | | | | | | | | 3.04 | | 350 | 1 | 1,600 | 205 | 6 | 2 | 4 | 35,252 | 32,102 | 450 | 565 |
| | | | | | | | | | | | | | | 12 | | 67,354 | | | | |
| GRAND TOTAL | | | | | | | | 4.09 | | 468 | 1 | 1,600 | 205 | 6 | 2 | 4 | 46,340 | 43,190 | 450 | 634 |
| | | | | | | | | | | | | | | 12 | | 89,530 | | | | |

Note: Temporary Traffic Control is for maps 1,2 and 3